

WHAT IS CLAIMED IS:

1. An exhaust gas treatment catalyst comprising:
 - 5 (a) a carrier;
 - (b) a first layer deposited on the carrier, said first layer comprising substantially only at least one refractive metal oxide;
 - (c) a second layer deposited on the first layer, said second layer comprising substantially only at least one oxygen storage component
10 and at least one binder therefor; and
 - (d) a third layer deposited on the second layer, said third layer comprising at least one layer of one or more platinum group metal components supported on a refractory metal oxide support..
- 15 2. The catalyst of claim 1 wherein the third layer further comprises at least one oxygen storage component and at least one binder therefor.
3. The catalyst of claim 1 further comprising a fourth layer deposited on the third layer, said fourth layer comprising one or more platinum group metal
20 components supported on a refractory metal oxide support.
4. The catalyst of claim 3 wherein the fourth layer further comprises at least one oxygen storage component and at least one binder therefor.
- 25 5. The catalyst of claim 3 wherein the refractory metal oxide employed in the first layer, third layer and the fourth layer is independently selected from the group consisting of alumina; titania; zirconia; mixtures of alumina with one or more of titania, zirconia, and ceria; ceria coated on alumina; and titania coated on alumina.
- 30 6. The catalyst of claim 3 further comprising an overcoat layer deposited on the third or the fourth layer, said overcoat layer comprising at least one catalyst poisons sorbent.

7. The catalyst of claim 6 wherein the carrier comprises a ceramic or metal having a honeycomb cellular structure comprising hexagonal, rectangular or square cells.

5 8. The catalyst of claim 7 wherein the first, second, third, fourth and overcoat layers have thicknesses at their respective edges and corners of the cells as follows:

<u>Layer</u>	<u>Edge Thickness, μ</u>	<u>Corner Thickness, μ</u>
First	about 3 to about 15	about 30 to about 200
Second	about 5 to about 15	about 30 to about 100
10 Third	about 5 to about 15	about 30 to about 100
Fourth	about 5 to about 15	about 30 to about 100
Overcoat	about 5 to about 15	about 30 to about 100

9. The catalyst of claim 1 wherein the oxygen storage component is selected
 15 from the group consisting of ceria, praseodymia, a ceria-praseodymia composite, a ceria-praseodymia-zirconia composite and a ceria-praseodymia-zirconia-neodymia composite, and the binder comprises zirconia.

10. The catalyst of claim 1 wherein the catalyst is present in the form of at
 20 least two catalytic zones.

11. An exhaust gas treatment article comprising a catalyst, an upstream EGO or air/fuel ratio sensor and a downstream EGO sensor, wherein the catalyst comprises:

- (a) a carrier;
- 25 (b) a first layer deposited on the carrier, said first layer comprising substantially only at least one refractive metal oxide;
- (c) a second layer deposited on the first layer, said second layer comprising substantially only at least one oxygen storage component and at least one binder therefor; and
- 30 (d) a third layer deposited on the second layer, said third layer comprising at least one layer of one or more platinum group metal components supported on a refractory metal oxide support..

12. The article of claim 11 wherein the third layer further comprises at least one oxygen storage component and at least one binder therefor.

13. The article of claim 12 further comprising a fourth layer deposited on the third layer, said fourth layer comprising one or more platinum group components supported on a refractory metal oxide support.

14. The article of claim 13 wherein the fourth layer further comprises at least one oxygen storage component and at least one binder therefor.

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15. The article of claim 13 wherein the refractory metal oxide employed in the first layer, third layer and the fourth layer is independently selected from the group consisting of alumina; titania; zirconia; mixtures of alumina with one or more of titania, zirconia, and ceria; ceria coated on alumina; and titania coated on alumina.

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16. The article of claim 13 further comprising an overcoat layer deposited on the third or the fourth layer, said overcoat layer comprising a catalyst poisons sorbent.

17. The article of claim 16 wherein the carrier comprises a ceramic or metal having a honeycomb cellular structure comprising hexagonal or square cells.

18. The article of claim 17 wherein the first, second, third, fourth and overcoat layers have thicknesses at their respective edges and corners of the rectangular or square cells are as follows:

25	<u>Layer</u>	<u>Edge Thickness, μ</u>	<u>Corner Thickness, μ</u>
	First	about 3 to about 15	about 30 to about 200
	Second	about 5 to about 15	about 30 to about 100
	Third	about 5 to about 15	about 30 to about 100
	Fourth	about 5 to about 15	about 30 to about 100
30	Overcoat	about 5 to about 15	about 30 to about 100

19. The article of claim 11 wherein the oxygen storage component is selected from the group consisting of ceria, praseodymia, a ceria-zirconia composite, a ceria-praseodymia-zirconia composite and a ceria-praseodymia-zirconia-neodymia composite, and the binder comprises zirconia.

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20. The article of claim 11 wherein the catalyst is present in the form of at least two catalytic zones.